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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,916	06/24/2003	Jari T. Malinen	104393.00002	4349
32294 7590 06/15/2009 SQUIRE, SANDERS & DEMPSEY L.L.P. 8000 TOWERS CRESCENT DRIVE 14TH FLOOR VIENNA, VA 22182-6212				
EXAMINER				
MATTIS, JASON E				
ART UNIT		PAPER NUMBER		
2416				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/603,916

**Applicant(s)**

MALINEN ET AL.

**Examiner**

JASON E. MATTIS

**Art Unit**

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-17, 20 and 22-38 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 7-14 and 27-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-17, 20, 22-26 and 34-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is in response to the Response to Election/Restriction filed 4/8/09. Claims 6, 18, 19, and 21 have been canceled. Claims 1-5, 7-17, 20, and 22-38 are currently pending in the application. Claims 15-17, 20, 22-26, and 34-38 of Group II have been elected. Claims 1-5, 7-14, and 27-33 are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 17, line 2 of this claim contains the term "the external mobile node". While there is prior mention of "a mobile node" in claim 15, which claim 17 depends on, there is no prior mention of any "external mobile node". Thus, there is insufficient antecedent basis for this term in the claim language. It is recommended that claim 17 be amended such that there is proper antecedent basis for this term.

Regarding claim 25, line 2 of this claim contains the term "the external mobile node". While there is prior mention of "a mobile node" in claim 23, which claim 25 depends on, there is no prior mention of any "external mobile node". Thus, there is

insufficient antecedent basis for this term in the claim language. It is recommended that claim 25 be amended such that there is proper antecedent basis for this term.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20 and 38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 20 and 38 are both directed towards "a computer program". Since computer programs are not recognized to fall within recognized statutory subject matter, any claim directed towards a computer program is directed towards non-statutory subject matter. It is recommended that these claims be amended such that a physical device containing the computer program be claimed, rather than the computer program itself. For example, it is recommended that "A computer program embodied on a computer readable medium" be changed to "A computer readable medium encoding a computer program".

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15-17, 20, 22-26, and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amara et al. (U.S. Patent US 7,062,566 B2) in view of Haverinen et al. (U.S. Publication US 2002/0161905 A1).

**With respect to claims 15, 20, and 23,** Amara et al. discloses an apparatus including a computer readable medium having a computer program controlling a processor to operate a method **(See the abstract, column 5 lines 6-28, and column 9 lines 16-28 of Amara et al. for reference to a gateway 180, which is an apparatus, including software and hardware, which comprise computer program controlling a processor, performing a network access method)**. Amara et al. also discloses a processor monitoring data directed to a mobile node to secure communication between the mobile node associated with a home network in a secure network and a correspondent node **(See the abstract, column 5 lines 6-28, column 8 lines 55-59, and Figure 1 of Amara et al. for reference to the gateway 180 monitoring data sent to and from a user device 102, which is a mobile node, to secure communications between the user device 102 associated with a receiving network 170, which is a corporate LAN acting as a secure home network for the user device 102, and a destination, which is a correspondent node)**. Amara et al. further discloses a receiver configured to collect data directed towards the mobile node wherein the processor is configured to package the collected data in an internet-protocol-in-internet-protocol tunnel **(See column 4 lines 55-61 and column 14 lines 10-17 of Amara et al.**

**for reference to the gateway 180 receiving packets directed towards the user device 102 and packaging the packets in an IP-in-IP tunnel).** Amara et al. also discloses a transmitter configured to send the packaged data to a virtual protocol network gateway for virtual protocol network encryption **(See column 4 lines 55-61, column 13 lines 10-32, and column 14 lines 10-17 of Amara et al. for reference to the gateway 180 tunneling the packets to a gateway 140, which acts as a virtual protocol network gateway, for providing VPN SA, which is a virtual protocol network encryption, for the packets before sending send the packets to the user device 102).** Amara et al. further discloses the encrypted data being packaged in a virtual protocol network secure tunnel to an address of the mobile node to create virtual protocol network packaged data that is tunneled to a current address of the mobile node **(See column 4 lines 12-21, column 5 lines 31-40, and column 8 lines 14-37 of Amara et al. for reference to data being tunneled between the gateway 140 and the user device 102 using an VPN and IPSec tunneling mechanism, meaning encrypted packets are tunneled using a VPN tag and IPSec tunnel to a current address of the user device 102).** Amara et al. does not specifically disclose the address being a permanent address located in the secure network.

**With respect to claims 17 and 25,** Amara et al. does not specifically disclose tunneling according to the internet protocol mobility protocol.

**With respect to claims 22 and 26,** Amara et al. does not specifically disclose creating or removing a proxy address resolution protocol entry for a permanent address associated with the mobile node

**With respect to claims 34, 36, and 38**, Amara et al. discloses Amara et al. discloses an apparatus including a computer readable medium having a computer program controlling a processor to operate a method **(See the abstract, column 5 lines 6-28, and column 9 lines 16-28 of Amara et al. for reference to a gateway 140, which is an apparatus, including software and hardware, which comprise computer program controlling a processor, performing a network access method)**. Amara et al. also discloses a receiving configured to receive collected data from a proxy home agent and a processor configured to encrypt the collected data **(See column 4 lines 55-61, column 13 lines 10-32, column 14 lines 10-17, and Figure 1 of Amara et al. for reference gateway 140 receiving packet via a tunnel from a gateway 180, which acts as proxy home agent, and for reference to the gateway 140 providing VPN SA, which is a virtual protocol network encryption, for the packets before sending send the packets to a user device 102)**. Amara et al. further discloses the processor packaging the encrypted data in a virtual protocol network secure tunnel to an address of the mobile node to create virtual protocol network packaged data that is tunneled to a current address of the mobile node **(See column 4 lines 12-21, column 5 lines 31-40, and column 8 lines 14-37 of Amara et al. for reference to data being tunneled between the gateway 140 and the user device 102 using an VPN and IPSec tunneling mechanism, meaning encrypted packets are tunneled using a VPN tag and IPSec tunnel to a current address of the user device 102)**. Amara et al. does not specifically disclose the address being a permanent address located in the secure network.

**With respect to claims 15, 17, 20, 22, 23, 25, 26, 34, 36, and 38**, Haverinen et al., in the field of communications, discloses tunneling according to the internet protocol mobility protocol whereby proxy address resolution protocol entries for permanent addresses are created for mobile nodes such that data addressed to a permanent address of the mobile node is tunneled to a current address of the mobile node **(See page 1 paragraph 4-6 of Haverinen et al. for reference to using Mobile IP whereby care-of addresses, which are proxy address resolution entries, are mapped to static home addresses, which are permanent addresses, of mobile nodes, such that data addressed to the static home addresses of the mobile nodes are tunneled to the current care-of addresses of the mobile nodes)**. Using the internet protocol mobility protocol has the advantage of allowing mobile nodes to seamlessly roam between different access networks using different network addresses while still being able to receive data sent to a permanent home address of the mobile node.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Haverinen et al., to combine using the internet protocol mobility protocol, as suggested by Haverinen et al., with the system and method of Amara et al., with the motivation being to allow mobile nodes to seamlessly roam between different access networks.

**With respect to claims 16 and 24**, Amara et al. discloses that the virtual protocol network secure tunnel follows internet protocol security protocol **(See column 5 lines 31-40 of Amara et al. for reference to using IPSec to tunnel packets to a user device 102)**.



**With respect to claims 35 and 37, Amara et al. discloses the virtual private network secure tunnel including an encapsulating security payload field comprising information regarding security used (See column 3 lines 42-55 of Amara et al. for reference to a security association being identified by using a security protocol identifier or a security parameter index, which are security payload fields comprising information regarding security used).**

### ***Response to Arguments***

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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